

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A mixture for etching a dielectric material in a layered substrate, the mixture comprising:

a fluorocarbon; and

a fluorine-containing oxidizer selected from the group consisting of: fluorooxytrifluoromethane, bis-trifluoromethyl-trioxide, fluoro-trifluoromethyl-trioxide, fluoroformyl trifluoromethyl-trioxide, and combinations thereof, wherein the mixture has a ratio by volume of the fluorine-containing oxidizer to the fluorocarbon of from 0.1:1 to 20:1.

2. (Original) The mixture of claim 1 further comprising an inert diluent gas.

3. (Original) The mixture of claim 2 wherein the inert diluent gas is at least one selected from the group consisting of argon, neon, xenon, helium, nitrogen, krypton, and combinations thereof.

4. (Original) The mixture of claim 2 wherein the mixture comprises from 0.1 to 99 % by volume of the inert diluent gas.

5. (Original) The mixture of claim 1 wherein the fluorocarbon is at least one selected from the group consisting of perfluorocarbon, hydrofluorocarbon, oxyhydrofluorocarbon, oxyfluorocarbon, and combinations thereof.

6. (Original) The mixture of claim 5 wherein the fluorocarbon is at least one perfluorocarbon selected from the group consisting of tetrafluoromethane, trifluoromethane, octafluorocyclobutane, octafluorocyclopentene, hexafluoro-1,3-butadiene, and combinations thereof.

7. (Currently Amended) The mixture of claim 6 wherein the ~~perfluorocarbon~~
fluorocarbon is hexafluoro-1,3-butadiene.

8. (Original) The mixture of claim 5 wherein the fluorocarbon is at least one hydrofluorocarbon.

9. (Currently Amended) The mixture of claim 9 5 wherein the fluorocarbon is at least one oxyhydrofluorocarbon.

10. (Currently Amended) The mixture of claim 5 9 wherein the oxyhydrofluorocarbon is at least one selected from the group consisting of perfluorocyclopentene oxide, hexafluoro-cyclobutanone, hexafluorodihydrofuran, hexafluorobutadiene epoxide, tetrafluorocyclobutanedione perfluorotetrahydrofuran (C_4F_8O), hexafluoropropylene oxide (C_3F_6O), perfluoromethylvinyl ether (C_2F_5O), and combinations thereof.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently Amended) The mixture of claim 1 wherein the dielectric material is at least one selected from the group consisting of silicon, silicon-containing compositions, silicon dioxide (SiO_2), undoped silicon glass (USG), doped silica glass, silicon and nitrogen containing materials, organosilicate glass (OSG), organofluoro-silicate glass (OFSG), low dielectric constant materials, polymeric materials, porous low dielectric constant materials, and combinations thereof.

18. (Canceled)

19. (Canceled)

20. (Original) A mixture for etching a dielectric material in a layered substrate comprising: a fluorocarbon and a fluorotrioxide.

21 to 26. (Canceled)

27. (New) The mixture of claim 1 wherein the fluorine-containing oxidizer is fluoroxytrifluoromethane.

28. (New) The mixture of claim 1 wherein the ratio by volume of the fluorine-containing oxidizer to the fluorocarbon of from 0.1:1 to 10:1.

29. (New) The mixture of claim 28 wherein the ratio by volume of the fluorine-containing oxidizer to the fluorocarbon of from 0.1:1 to 5:1.